ALTERNATIVE FUELS AND CONVERSIONS

HOLDIM group

ecomotive solutions

bigas

AUTOGAS Aitalia

RAIL

ecomotive solutions

Has been developing technologies for the use of alternative fuels since 2009.
Using its in-depth knowledge of motor control electronics, it designs solutions in a wide range of applications: automotive, off-road, industrial, marine and rail.
It handles the design and production of ECUs, software and mechanical components.
Dedicated applications for each type of vehicle with related type-approval service.
Offers engineering, prototyping and pre-series services for the conversion of combustion engines to use alternative fuels

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PROTOTIPES/MICROSERIES

Development and prototyping of customised engines and systems for the professional and OEM customer

SYSTEM INTEGRATION

We link the experiences and capabilities and products of different top industry players to achieve the goal required by the customer

TESTING
360° Testing of vehicles:

- engine tests
- roller bench emissions tests
- power bench tests

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DIESEL DUAL FUEL

The Diesel Dual Fuel platform is the product that gave Ecomotive Solutions its start. This is an electronic injection system designed to power diesel engines with a dynamic controlled mix of diesel and gas (methane, bio-methane, LPG and hydrogen).
Primary injection control and accurate dosing of the air-gas mixture are the strengths of the system, which is constantly controlled by an intelligent mixture that can communicate with the engine in real time to ensure the perfect operation and safety of the engine. The amount of diesel injected is consistently reduced based on the vehicle type and conditions of use

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D-GID LIGHT 32

4 Cylinders
Light-duty vehicles

4 Cylinders
Light-duty vehicles

D-GID EVO PLUS

Medium/heavy-duty
vehicle up to 400hp

Medium/heavy-duty
vehicle up to 400hp

D-GID

Heavy-duty vehicle
over 400hp

4 Cylinder
Light-duty vehicles

EMISSIONS ROOM

Ecomotive Solutions, in addition to its extensive knowledge of the conversion industry, is also able to provide an emissions analysis service. All this is possible through its four testing rooms: one roller room for light and medium duty vehicles and three engine test rooms.
New laboratories and two PEMS systems to detect road cycle emissions are available for in-house testing. The same activities are also constantly offered to external companies with the need to arrange type-approval of their vehicles

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CASE HISTORIES

Ecomotive Solutions technologies are applicable to anything that has an engine

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AUTOMOTIVE

LCV

TRUCK

HEAVY EQUIPMENT

RAILWAY

MARINE

ENGINEERING

Ecomotive Solutions is your go-to partner when it comes to using alternative fuels in low- or zero impact energy producing operations.
With decades of deep experience and a wide range of applications across multiple fields, Ecomotive Solutions provides its customers with a wealth of expertise

CUSTOMER NEEDS ANALYSIS

Ecomotive Solutions analyzes the field of application: whether in island or co-generator, operating temperatures, and working conditions

ANALYSIS OF THE ALTERNATIVE FUEL PROPOSED BY THE CUSTOMER

Our team of experts is capable of analyzing the type of alternative fuel proposed by the client in order to optimize the engine's performance.The fuels proposed are typically derived from processing waste or lesser-known biological products but with excellent calorific value and usability in combustion

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DEDICATED COMPONENTS STUDY

For different uses, the development of dedicated components with different characteristics from the original ones is necessary.
The most customized components are:
intake manifold, valves, pistons, and supercharging systems.
All components are studied, designed, and manufactured internally.
In the case of very particular components such as, for example, ATS systems, they are externally produced by a chain of competent suppliers

ANALYSIS OF THE STARTING ENGINE

It is necessary, having knowledge of the fuel to be used, to analyze the standard components of the engine used, such as: intake manifold, combustion chamber, supercharger system

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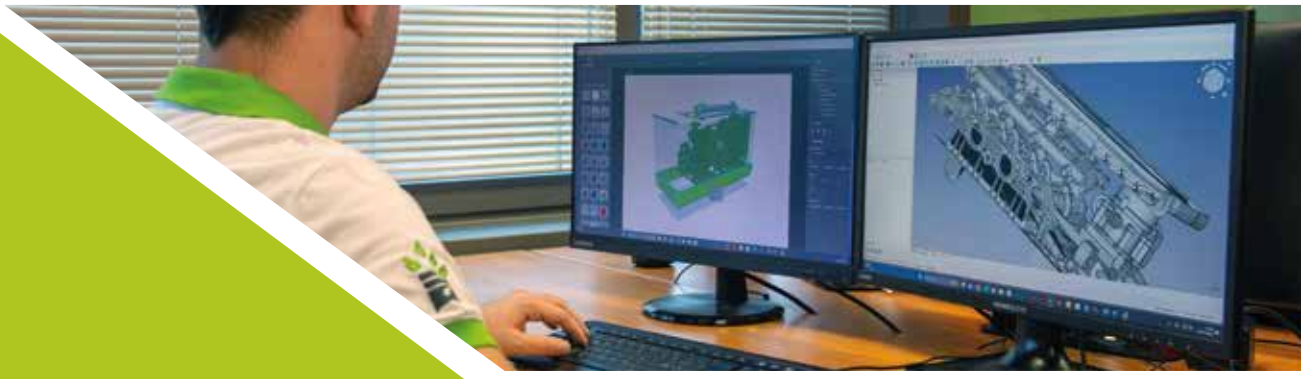

IN-HOUSE COMPONENTS PROCESSING

The dedicated in-house laboratory enables Ecomotive Solutions to modify and create bespoke components quickly and with the utmost precision, transforming prototyping into routine work. The in-house production capacity allows for the creation of prototypes or small series

TESTING

The testing service, realized through the presence of several test benches of different power sizes allows Ecomotive Solutions to be flexible and always ready for any customer's needs. The available benches are able to cover powers from 15 to 1500kw. Alongside the benches and test rooms, advanced emissions measurement systems ensure that the customer is supported until the homologation certificate is obtained

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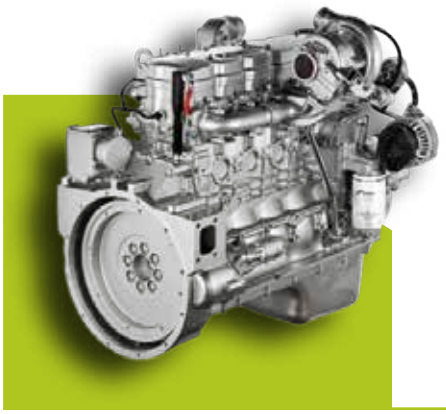


FPT NEF N67

N67 TURBO, CNG, 129 kW; 2150 RPM, port injection, application – OFF ROAD

N67 TURBO, METHANOL, 85 kW; 1500 RPM, port injection, application – INDUSTRIAL

N67 TURBO, CNG, 129 kW; 2150 RPM, port injection, application – OFF ROAD

N67 TURBO, METHANOL, 85 kW; 1500 RPM, port injection, application – INDUSTRIAL

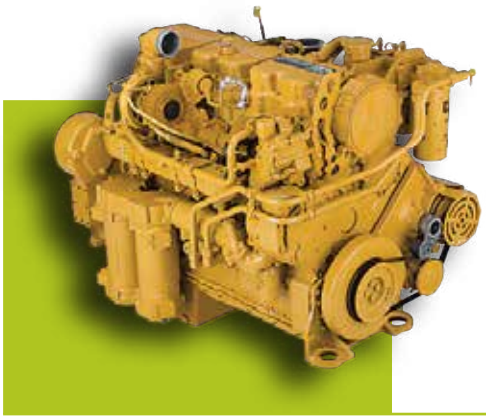
FPT NEF N60

N60 TURBO, HYDROGEN, 130 kW; 2500 RPM, port injection

N60 TURBO, METHANOL, 85 kW; 1500 RPM,port injection, application – INDUSTRIAL

N60 TURBO, HYDROGEN, 130 kW; 2500 RPM, port injection

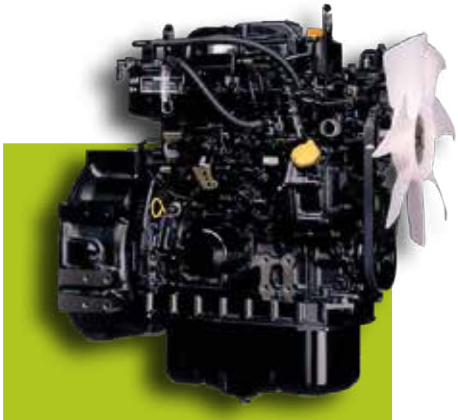
N60 TURBO, METHANOL, 85 kW; 1500 RPM,port injection, application – INDUSTRIAL



CATERPILLAR CAT C 15

CNG, 220 kW; 1500 RPM, draw gas, application – INDUSTRIAL

CNG, 220 kW; 1500 RPM, draw gas, application – INDUSTRIA



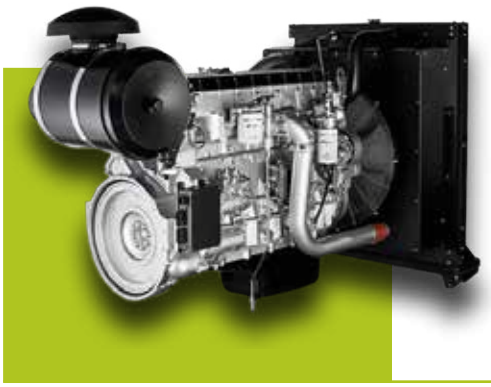
ISUZU 3CB1

CNG, 11 kW, 1500 RPM, draw gas, application – INDUSTRIAL

LPG, 10 kW, 1500 RPM,port injection, application – INDUSTRIAL

CNG, 11 kW, 1500 RPM, draw gas, application – INDUSTRIAL

LPG, 10 kW, 1500 RPM,port injection, application – INDUSTRIAL



FPT CURSOR 13

C13 ASPIRATED, ETHANOL, 120 kW, 1500 RPM, port injection, application – INDUSTRIAL

C13 TURBO, CNG, 270 kW, 1500 RPM, draw gas, application – INDUSTRIAL

C13 TURBO, SYNGAS, 200 kW, 1500 RPM, draw gas, application – INDUSTRIAL

C13 TURBO, LPG, 160 kW, 1500 RPM, draw gas, application – INDUSTRIAL

C13 ASPIRATED, ETHANOL, 120 kW, 1500 RPM, port injection, application – INDUSTRIAL

C13 TURBO, CNG, 270 kW, 1500 RPM, draw gas, application – INDUSTRIAL

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C13 TURBO, LPG, 160 kW, 1500 RPM, draw gas, application – INDUSTRIAL

FIAT 8217

FIAT 8217 TURBO, LNG, 170 kW, 1800 RPM, port injection, application - RAILWAY

FIAT 8217 TURBO, LNG, 170 kW, 1800 RPM, port injection, application - RAILWAY

VOLVO PENTA

CNG, 180 kW, 3300 RPM, port injection, application –MARINE

CNG, 180 kW, 3300 RPM, port injection, application –MARINE

DEUTZ TC36

DEUTZ TC36, 95 kW, 2200 RPM, port injection, application – OFF-ROAD

DEUTZ TC36, 95 kW, 2200 RPM, port injection, application – OFF-ROAD

Bigas, part of the Holdim Group since 2022, develops and produces components and complete systems for LPG conversion

It provides great opportunities to drivers worldwide, working with heart and passion every day to safeguard the environment

Its long history and optimum credibility, built up on the international markets, make Bigas an excellent protagonist in the new global energy scenarios

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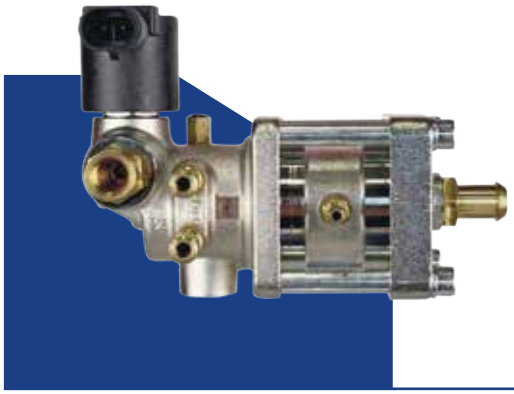
REDUCER RI27-J



The CNG reducer RI27-J for sequential systems is suitable for any type of car up to 300 Kw (402.3 HP).
The CNG solenoid valve is built directly into the reducer body.
It is designed to achieve the best possible vaporization in any environmental conditions.
Two-stage membrane reducer for high-performance sequential systems.
Brass body (Nickel plated)
Connection to engine water circuit

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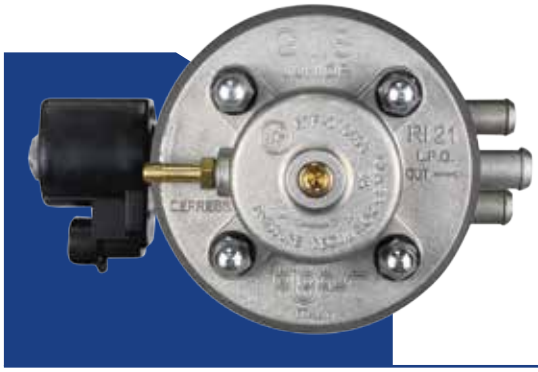
REDUCER RI21



The LPG reducer RI21 is suitable for sequential systems on cars up to 140 Kw (187.7 HP).
It is designed to achieve the best possible vaporization in any environmental conditions.
Single-stage membrane reducer for high-performance sequential systems.
Aluminium body.
Vibration damper (SILENT-BLOCK).
Connection to engine water circuit

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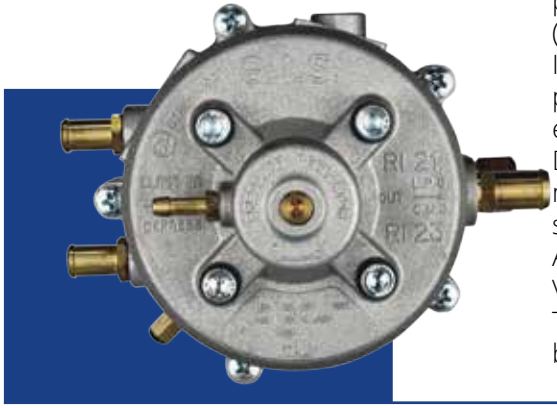
REDUCER RI21 DOUBLE



The LPG reducer RI 21 Double is suitable for any type of car with a power between 140 Kw and 280 Kw (187.7 and 375.5 HP).
It is designed to achieve the best possible vaporization in any environmental conditions.
Double reducer with single-stage membrane for high-performance sequential systems.
Aluminium body.
Vibration damper (SILENT-BLOCK).
The engine water circuit is positioned between the two reducer bodies

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AUTOGAS Aitalia

Active since 2000 and part of the Holdim Group since 2016, it produces and distributes methane/ LPG conversion systems for petrol or diesel vehicles

A versatile contact for professionals in the world of gas conversions for any petrol or diesel engine

New partnerships in emerging markets where the development of alternative energy forms is strategic for the growth of the country

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REDUCER RPG09

LPG reducer for sequential injection system.
The gearbox RPG 09 is characterized by technical innovations that guarantee excellent operation, reliability and ease of installation.
This version is equipped with a dynamic pressure compensation system that allows you to increase the output pressure of LPG, when the load of the engine increases.

Available versions
Normal: 110 KW
Super: 110 KW > 140 KW

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Available versions
Normal: 110 KW
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ECO GID

The ECOGID is the electronic control unit for managing sequential direct injection engines with 2-3-4 cylinders. The control unit is designed to make the best use of the characteristics of the gas fuel used in Otto cycle engines while maintaining the exhaust gas emissions level according to the original standard of the car.
The 48-pin connector used provides exceptional connectivity safety and water infiltration protection.
The ECO GID connects with the car's original OBD, exchanging information and actively and instantly acting on the gas system, thus optimizing the carburetion and engine efficiency, and correcting the gasoline level directly via CAN.

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Advanced automation allows for efficiency increases in the calibration and final inspection phases of the injectors. The goal is to achieve excellence by reaching the highest quality standards

Thanks to continuous investments in research and development, today RAIL aims to further increase the quality of its products with the objective of confirming itself as a reliable and innovative partner for its customers

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IG4 Dakota OEM

Single injector for LPG/CNG applications IG4 DAKOTA OEM version

Single injector for LPG/CNG applications IG4 DAKOTA OEM version

IG1 Apache HD

Rail injector for LPG and CNG gas phase. Only version with 0.45mm stroke.
Ideal for Euro5 and Euro6 engines, up to 35 HP/cil. Coils having integrated 2-way watertight connector compatible Amp/Delphi.
Black anodized aluminum body.
High durability performance due to high-strength materials

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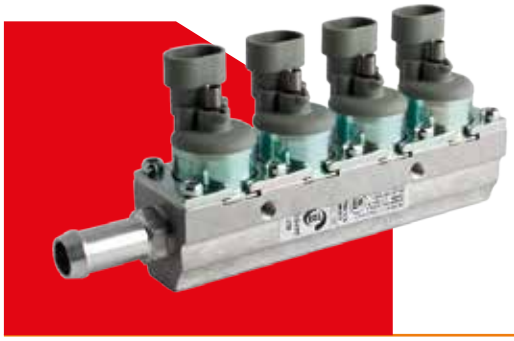
IG7 Dakota LP & LHF



Rail injector for LPG and CNG gas phase. Only version with 0.47mm stroke. Coils having integrated 2-way watertight connector compatible Amp/Delphi. Aluminum body. Construction technology apt to achieve high performance in speed and durability. High stability and repetitiveness of internal flows

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IG6 Taurus II

Single point dispenser for LPG/methane gas phase for heavy vehicles. Coils having integrated 2-way watertight connector compatible amp/del phi. Anodized aluminum body. It ensures high performance in terms of speed, flow rate and durability, with reduced sensitivity to dirt. Compact construction and wide flexibility of installation on the vehicle. Variants also availables with 3 and 5 coils

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Greener LNG Reducer

Single stage reducer for LNG applications standard version

Single stage reducer for LNG applications standard version

Greener LNG reducer

Single stage reducer for LNG applications coil version

Single stage reducer for LNG applications coil version

Tyrion reducer

Single stage reducer for sequential injection methane applications

Single stage reducer for sequential injection methane applications

HOLDIM group

Ecomotive Solutions was founded in 2009 within the context of Holdim Spa, whose core business since 1991 has been related to the development of solutions for electronic engine management. In addition to Dimsport, a well-known brand among workshops and tuners worldwide, the group also includes GLF Turbine, a company within the group that produces stator components and gas turbines. The newly established GreenForce is responsible for supplying complete fuel cell systems. Holdim Spa, with its 57 million in revenue and 210 employees, besides its main headquarters in the Province of Alessandria, also operates commercial branches in five foreign countries

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GROUP COMPANY

DIMSPORT®

ecomotive solutions

BYTERD

bigas

AUTOGAS Italia

RAIL

LF TURBINE

VALIS ENVIRONMENTAL TECHNOLOGIES

GREENFORCE

AGRIDEA SOCIETÀ AGRICOLA

CIRCUITO MONFERRATO

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